

**WHAT IS CLAIMED IS:**

1. A tracing system, comprising:  
a plurality of compression modules that receive trace data input, each of said plurality of compression modules being configured to compress a piece of trace data to produce a piece of compressed trace data; and  
a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression.
2. The tracing system of claim 1, further comprising a FIFO that is coupled to said compression selector module, said FIFO storing said selected piece of compressed trace data prior to transmission on a trace bus.
3. The tracing system of claim 1, wherein said plurality of compression modules includes one or more of a delta compression module, a bit-block compression module, a run length encoding module, and a variable bit-block compression module.
4. The tracing system of claim 1, wherein said compression selector module selects one of said plurality of compression modules in accordance with a default selection.

5. The tracing system of claim 1, wherein said compression selector module signals a compression module that has been selected.

6. A computer program product comprising:

computer-readable program code for causing a computer to describe a plurality of compression modules that receive trace data input, each of said plurality of compression modules being configured to compress a piece of trace data to produce a piece of compressed trace data; and

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression; and

a computer-usable medium configured to store the computer-readable program codes.

7. A method for enabling a computer to generate tracing logic, comprising:

transmitting computer-readable program code to a computer, said computer-readable program code including:

computer-readable program code for causing a computer to describe a plurality of compression modules that receive trace data input, each of said plurality of compression modules being configured to compress a piece of trace data to produce a piece of compressed

trace data; and

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression.

8. The method of claim 7, wherein computer-readable program code is transmitted to said computer over the Internet.

9. A computer data signal embodied in a transmission medium comprising:

computer-readable program code for causing a computer to describe a plurality of compression modules that receive trace data input, each of said plurality of compression modules being configured to compress a piece of trace data to produce a piece of compressed trace data; and

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression.

10. A tracing method, comprising:  
compressing a piece of trace data using a plurality of compression methods to produce a corresponding plurality of pieces of compressed trace data;  
selecting one of said plurality of pieces of compressed trace data; and  
outputting said selected piece of compressed trace data.

11. The tracing method of claim 10, wherein said compressing includes compressing said piece of trace data with one or more of delta compression, bit-block compression, run length encoding, and variable bit-block compression.

12. The tracing method of claim 10, wherein said selecting comprises identifying the piece of compressed trace data that has the least number of bits.

13. The tracing method of claim 10, wherein said selecting is based on a default selection.

14. The tracing method of claim 10, further comprising outputting an indication of a compression method used to produce said selected piece of compressed trace data.

15. A tracing method, comprising:  
compressing a piece of trace data using a plurality of compression methods to

produce a corresponding plurality of pieces of compressed trace data;

determining which of said plurality of pieces of compressed trace data exhibits a desired level of trace data compression;

selecting one of said plurality of pieces of compressed trace data based upon said determination; and

outputting said selected piece of compressed trace data.

16. The tracing method of claim 15, wherein said determining comprises identifying the piece of compressed trace data that has the least number of bits.

17. The tracing method of claim 15, wherein said compressing includes compressing said piece of trace data with one or more of delta compression, bit-block compression, run length encoding, and variable bit-block compression.

18. The tracing method of claim 15, wherein said selecting is based on a default selection.

19. The tracing method of claim 15, further comprising outputting an indication of a compression method used to produce said selected piece of compressed trace data.

20. A tracing system, comprising:

a plurality of compression modules that receive a stream of input trace information, said stream of input trace information including a plurality of pieces of input trace data, each of said plurality of compression modules being configured to receive said plurality of pieces of input trace data and compress said plurality of pieces of input trace data to produce a corresponding plurality of pieces of compressed trace data; and

a compression selector module coupled to said plurality of compression modules, wherein upon receipt of a piece of compressed trace data from each of said plurality of compression modules, said received pieces of compressed trace data corresponding to a single piece of input trace data, said compression selector module selects the piece of compressed trace data that exhibits a desired level of trace data compression.

21. The tracing system of claim 20, wherein said selection by said compression selector module is performed for compressed trace data generated for each piece of input trace data.

22. The tracing system of claim 20, wherein said selection is independently performed for compressed trace data generated from each piece of input trace data.

23. The tracing system of claim 20, wherein said plurality of compression modules includes one or more of a delta compression module, a bit-block compression module, a run length encoding module, and a variable bit-block compression module.